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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|
| 09/525,842      | 03/15/00    | MIKKELSON            | K 2946              |

IM22/0824

ROBERT A VITALE JR  
NIRO SCAVONE HALLER & NIRO  
181 WEST MADISON STREET  
STE 4600  
CHICAGO IL 60602

EXAMINER

BARRY, C

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 1724     | 8            |

DATE MAILED: 08/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 09/525,842             | MIKKELSON ET AL.    |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Chester T. Barry       | 1724                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 02 August 2001.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-6 is/are pending in the application.

4a) Of the above claim(s) 5 and 6 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-4 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a)  The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

|   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s). <u>2,5</u> |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____    | 6) <input type="checkbox"/> Other: _____   |

Applicant's election with traverse is noted, but no reasons for the traversal were given. Accordingly, the restriction requirement is FINAL.

Claim 1 is rejected under 35 USC §103 as being unpatentable over USP 5304308 to Tsumura in view of USP 6113789 to Burke.

Tsumura describes feeding a waste water in to a vessel having an activated sludge therein. At some point during the process, air is intermittently turned on and off thereby producing aerobic and anoxic conditions in the vessel. A period of anaerobic digestion also occurs. The method of separating the suspended solids from the liquid is by gravity clarification rather than by membrane filtration. See entire document. The invention is obvious, however, because Burke suggests to the skilled artisan that membrane filtration can be substituted for a clarifier (claim 6).

Claims 2 – 4 are rejected under 35 USC §103 as being unpatentable over USP 5304308 to Tsumura in view of USP 6113789 to Burke, alone or further in view of USP 5624565 to Lefevre.

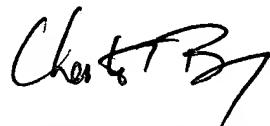
Tsumura and/or Lefevre teach the importance of both the aeration period duration and the anoxic period duration. It would have been obvious to have optimized these known result effective variables (duration parameters) to effect better waste treatment.

USP 6190554 is cited of interest. The pending claims are not limited to SBR reactors.

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Claims 1 – 4 are objected to. Claim 1 is objected to on the grounds that “extracting” is a term of art in chemical engineering process industries. It is suggested that “removing” be used in place of “extracting” in claim 4.

The Abstract is objected to as being too long. Please edit it to about one-half its length.



CHESTER T. BARRY  
PRIMARY EXAMINER

8/24/01

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